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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/518,051	08/22/1995	STEPHEN D. RUSSELL	74023	8136

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EXAMINER

MENGISTU, AMARE

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 07/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
08/518,051	Stephen D. Russell et al
Examiner Amare Mengistu	Art Unit 2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on Apr 3, 2003

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1, 4, and 12-17 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 16 and 17 is/are allowed.

6) Claim(s) 1, 4, and 12-15 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CAR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "wherein a plurality of pixels are arranged on each of the display regions and the display regions are superimposed upon each other to create a one to one correspondence between pixels on the superimposed display regions." must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 U.S.C. § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1,4,13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose the new claims limitations "wherein a

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plurality of pixels are arranged on each of the display regions and the display regions are superimposed upon each other to create a one to one correspondence between pixels on the superimposed display regions.” as originally filed .

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4,12-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over LIANG Yue (WO 94/08331) in view of Applicant's Admitted Prior Art (figs.1-3) and Johary et al (5,196,839).

As to claims 1,4,12-15, LIANG Yue (hereinafter LIANG) discloses a fault tolerant LCD , controller for controlling the gray scale on at least one pixel (Abstract; page 8, lines 25-28) of LCD region . LIANG also teaches a polarizes (fig.9C (PL1), (PL2)); LCD coupled to the polarizes (fig.9C (LC)). LIANG did not expressly disclose in detail the structure of the LCD. However, Applicant's Admitted Prior Art (figs. 1-3) teaches that a STN liquid crystal display system (figs. 1-3, also see, page 8, the last 2 lines) comprising: a light source (22); a polarizer / an intensity homogenizing (16), a beam of incident light (22), a plurality of liquid crystal display regions coupled

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(14) to the polarizer (16); a plurality of pixels are arrayed on each of the display regions (14) and the display regions are superimposed upon each other to create a one to one correspondence between pixels on the superimposed display region (10,12 and 14) ; an analyzer coupled to the polarizer and the pixel sequence to pass a gray-scale portion of the beam of polarized light transmitted from the pixel sequence as a function of polarized angle (page, 8, lines 6-23), a transparent substrates (12) ; and a drive circuit (18).

Therefore it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to combine the use of polarizer as taught by AAPA with a fault tolerant LCD of LIANG since this will provide a uniform brightness to the LCD system.

LIANG (as modified by Applicant's Admitted Prior Art) discloses a liquid crystal display with a gray scale control, but has failed to explicitly teach the gray scale control includes a programmable gray scale driver. Johary is cited to teach that it is well known for a gray scale display circuit to have a programmable gray scale generators (drivers) to provide gray scale at the display (see, Abstract, col.2, lines 35-46).

Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to have incorporated programmable gray-scale drives of Johary into the system of LIANG, since this will allow the LIANG device to have an advantage of automatically control the gray scale of a display in order to ensure simplicity and higher efficiency of adjustment operation without requiring operators.

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Allowable Subject Matter

5. Claims 16 and 17 are allowed.

Response to Arguments

6. Applicant's arguments filed on 4/3/2003 have been fully considered but they are not persuasive.

Applicant argues that Applicant's *invention uses a single pixel structure* against the teachings of LIANG, which instead uses a symmetrical drive dual redundancy (SDDR) pixel structure that comprises two sub-pixels. The Examiner disagrees with Applicant's assertion. LIANG is only cited to teach a fault tolerant LCD controller for controlling the gray scale on at least one pixel (Abstract; page 8, lines 25-28). As to Applicant's argument that the *invention uses a single pixel structure*; the claims never recites using a single pixel structure.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

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mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication should be directed to Amare Mengistu at telephone number (703) 305-4880.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

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A.M (h)

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June 19,2003


Amare Mengistu
Primary Examiner